

Software Diversification for WebAssembly

JAVIER CABRERA-ARTEAGA

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KTH Royal Institute of Technology
School of Electrical Engineering and Computer Science
Division of Software and Computer Systems
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Abstract

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Sammanfattning

LIST OF PAPERS

WebAssembly Diversification for Malware Evasion Javier Cabrera-Arteaga, Tim Toady, Martin Monperrus, Benoit Baudry Computers & Security, Volume 131, 2023, 17 pages https://www.sciencedirect.com/science/article/pii/S01674048230

2. Wasm-mutate: Fast and Effective Binary Diversification for WebAssembly

Javier Cabrera-Arteaga, Nicholas Fitzgerald, Martin Monperrus, Benoit Baudry

Under review, 17 pages

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https://arxiv.org/pdf/2309.07638.pdf

3. Multi-Variant Execution at the Edge

Javier Cabrera-Arteaga, Pierre Laperdrix, Martin Monperrus, Benoit Baudry

Moving Target Defense (MTD 2022), 12 pages

https://dl.acm.org/doi/abs/10.1145/3560828.3564007

4. CROW: Code Diversification for WebAssembly

Javier Cabrera-Arteaga, Orestis Floros, Oscar Vera-Pérez, Benoit Baudry, Martin Monperrus

Measurements, Attacks, and Defenses for the Web (MADWeb 2021), 12 pages https://doi.org/10.14722/madweb.2021.23004

5. Superoptimization of WebAssembly Bytecode

Javier Cabrera-Arteaga, Shrinish Donde, Jian Gu, Orestis Floros, Lucas Satabin, Benoit Baudry, Martin Monperrus

Conference Companion of the 4th International Conference on Art, Science, and Engineering of Programming (Programming 2021), MoreVMs, 4 pages https://doi.org/10.1145/3397537.3397567

6. Scalable Comparison of JavaScript V8 Bytecode Traces
Javier Cabrera-Arteaga, Martin Monperrus, Benoit Baudry
11th ACM SIGPLAN International Workshop on Virtual Machines and
Intermediate Languages (SPLASH 2019), 10 pages

https://doi.org/10.1145/3358504.3361228

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Part I

Thesis